Stressing and Anchorage System Hardware *Checklist*:

Bridge #:_____ **Transmittal (Reference) #:**_____

Post-Tensioning Company Name: _____

System Name: _____ **System Location**:_____

Tendon size: _____ Strand diameter (in.): _____

The proposed anchorage system is listed on the Caltrans website of METS Pre-approved Prestress/Post-Tensioning Strand Systems. YES _____ NO _____

1. General Strength Parameters Check

	Approved (Listed) Value	Actual (Shop Drawing) Value	**YES**	**NO**
Pjack force (Kips)				
Min. Concrete Strength (PSI)				

2. Anchor Head Check

	Approved (Listed) Value	Actual (Shop Drawing) Value	**YES**	**NO**
Anchor Size				
Material				

3. Bearing Plate Check

	Approved (Listed) Value	Actual (Shop Drawing) Value	**YES**	**NO**
Bearing plate size (in.)				
Bearing plate material				

4. Wedge Check

	Approved (Listed) Value	Actual (Shop Drawing) Value	**YES**	**NO**
Wedge material				

5. Duct Size Check

	Approved (Listed) Value	Actual (Shop Drawing) Value	**YES**	**NO**
Duct Size				

Note: Per AASHTO 5.4.6.2, the inside cross-sectional area of the duct shall be at least:
Push System (common) **≥ 2.0** times the area of the total strands.
Pull System **≥ 2.5** times the area of the total strands.

6. Spiral Check (if shown)

	Approved (Listed) Value	Actual (Shop Drawing) Value	**YES**	**NO**
Spiral rebar size				
Pitch				
No. turns				
O.D.				

The proposed anchorage system qualifies as an approved Caltrans METS Pre-approved Prestress/Post-Tensioning Strand System.

YES _____ **NO** _____ _____ _____

(Reviewed By) (Date)

Note:
Any additional information shown on the shop drawings that can not be verified by the Caltrans METS approved hardware listing, is to be used only at the discretion of the Contractor.

Instructions/Notes for:
"Stressing and Anchorage System Hardware *Checklist*"

Purpose:

To provide the Designer with a convenient checklist to help expedite the check of the Prestressed/Post-Tensioned anchorage hardware as part of the Prestress Working Drawing review.

Checklist Steps:

Once the PS/PT system is located on the approved Caltrans METS list, gather the information for the following as listed on the *Checklist*.

1. General Strength Parameters
   - Pjack force: Usually listed in "Prestressing Calculations" in terms of force per tendon.
   - Min. Concrete Strength: Concrete compressive strength behind bearing hardware.

2. Anchor Head (aka "Wedge Plate"(DSI), "Anchor Head" (Schwager Davis Inc.)
   - Size: Head geometry can be round or square.
   - Material: AISI or ASTM approved.

3. Bearing Plate
   - Size: Plate geometry can be round or square.
   - Material: AISI or ASTM approved.

4. Wedge
   - Material: AISI or ASTM approved.

5. Duct Size
   - Size: Can be round or square.

6. Spiral
   - Rebar Size: Specified for transverse tension in local anchorage zone.
   - Pitch: To insure uniform distribution of bursting/cracking stresses.
   - No. Turns: To insure uniform distribution of bursting/cracking stresses.
   - Outside Diameter: For check of adequate clearance/cover of reinforcement.

References:

- Caltrans *Internet* Prequalified Products Lists (QPLs), Post Tensioning Systems
  The internet web link is as follows:

  http://www.dot.ca.gov/hq/esc/approved_products_list/pdf/PSapproved.pdf

- MTD 11-1, Review of Working Drawings – Prestressed Concrete, Part B (Guide for Checking Working Drawings)

- DES Structure Construction, California Prestressing Manual, 2005

  Note: This manual is not currently, maintained but is a good general reference which includes some manufacturer hardware, constructability, and systems descriptions.